

REMARKS

I. INTRODUCTION

The Office Action mailed on April 30, 2003 and the references cited therein have been carefully studied and, in view of the following representations and foregoing amendments, reconsideration and allowance of this application are most respectfully requested. Claims 20-30 and 33-47 are pending in the current application, with claims 27, 28, 37-43, 46 and 47 being withdrawn from consideration. The Examiner has requested a proper drawing correction, has rejected claims 44 and 45, and has allowed claims 20-26, 29, 30 and 33-36. Applicants gratefully acknowledge the Examiner's allowance of claims 20-26, 29, 30 and 33-36. By the current amendment, a proper drawing correction has been submitted, and claim 44 has been amended. Applicants respectfully submit that the claims are now in condition for allowance.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "Version with Markings to Show Changes Made."

II. OBJECTION TO THE DRAWINGS

The Examiner has approved the proposed drawing correction filed on March 19, 2003, and has requested that a proper drawing correction be submitted in response to the Office Action mailed on April 30, 2003. In response thereto, Applicants submit herewith the new versions of Figures 1 and 2 which include the previously proposed drawing corrections. The new versions of Figures 1 and 2 are attached to the accompanying Letter to the Official Draftsman.

Thus, Applicants respectfully submit that a proper drawing correction has been submitted herewith.

III. REJECTIONS UNDER 35 U.S.C. §102

The Examiner has rejected claims 44 and 45 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,074,755 ("Vincent"), and has rejected claims 44 and 45 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,624,625 ("Schrenker"). It is respectfully submitted that this rejection should be withdrawn for at least the following reasons.

To anticipate a claim, a reference must disclose each and every element of the claimed invention. *Verdergaal Bros. v. Union Oil Co. of Cal.*, 814 F.2d 628, 2 USPQ2d 1051 (Fed. Cir. 1987). Applicants respectfully submit that neither Vincent nor Schrenker disclose each and every element of independent claim 44 in amended form.

Vincent is directed to a hydraulically driven reciprocating compressor having a free-floating diaphragm. The compressor disclosed in Vincent includes "a flexible diaphragm used as the pumping element, said compressor further including a sensor to monitor the position of the diaphragm and a control circuit for maintaining the diaphragm position in a preselected range to avoid contact between the diaphragm and the rest of the compressor[, and] . . . an expansion member for compensating for the thermal expansion and compressibility of the working fluid of the compressor." Vincent, abstract.

Schrenker is directed to a high pressure metering pump. The metering pump disclosed in Schrenker "has a duty cycle which includes: an aspiration portion, wherein liquid

is aspirated into a pumping chamber; a compression portion, wherein the aspirated liquid is compressed to pumping pressure; a feed portion, wherein a part of the compressed liquid is expelled out of the pumping chamber; and, a decompression portion, wherein the liquid remaining in the pumping chamber is expanded to aspiration pressure.” Schrenker, col. 4, lines 3-11. In addition, Schrenker discloses a measurement and control apparatus including “a controller for holding constant the mean flow rate of the pumped liquid and a detector for detecting the transition point between the compression and pumping portions and/or between the decompression and aspiration portions.” Schrenker, col. 4, lines 17-22.

In contrast to the teachings of Vincent and/or Schrenker, the device of the present invention, as currently recited in claims 44 and 45 in amended form, includes a “hydraulic sensor adapted and arranged for measuring the pressure of the fluid within the hydraulic unit; . . . [and] a control unit connected to the . . . hydraulic sensor, wherein . . . the control unit is adapted for shutting off the pumping unit in response to a measured pressure outside a predetermined range.” No new matter has been added by the present amendment, as support thereof can be found in the specification at, *inter alia*, page 3, lines 13-16; page 5, line 28 through page 6, line 2; page 7 line 35 through page 8, line 2; and page 8, lines 29-35. Thus, neither Vincent nor Schrenker discloses or suggests each and every element of the claimed device as presently recited in claims 44 and 45.


Therefore, for at least the preceding reasons, Applicants respectfully submit that the rejections under 35 U.S.C. § 102(b) have been overcome and should therefore be withdrawn.

IV. CONCLUSION

Applicants respectfully submit that the pending claims are now in condition for allowance and request that such action be taken. If for any reason the Examiner believes that prosecution of this application would be advanced by contact with the Applicants' attorney, the Examiner is invited to contact the undersigned at the telephone number given below.

Respectfully submitted,
KENYON & KENYON

Dated: July 16, 2003

By: 
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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claim 44 has been amended as follows:

44. (amended) A pumping device for delivering and metering medical fluids comprising:
- a. a membrane unit having a first membrane bordering a first chamber;
 - b. a membrane pump head mounted on the membrane unit, the membrane pump head having a second chamber bordered by the first membrane on the side opposite the first chamber, the second chamber having an inlet and an outlet for conveying medical fluids;
 - c. a pumping unit connected to the first chamber by a hydraulic unit containing hydraulic fluid in fluid connection with the first chamber;
 - d. a hydraulic sensor in fluid connection with the hydraulic unit, the hydraulic sensor adapted and arranged for measuring the pressure of the fluid within the hydraulic unit;
 - e d. a measuring device for measuring the pumping unit output; and
 - f e. a control unit connected to the measuring device, ~~and~~ the pumping unit, and the hydraulic sensor, wherein the control unit being is adapted and arranged for controlling the pumping unit output based on the measurements of the measuring device, and wherein the control unit is adapted for shutting off the pumping unit in response to a measured pressure outside a predetermined range;

wherein movement of fluid in the first chamber induces movement of fluid in the second chamber.

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